

# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**2353**  
Component  
**Diesel Engine**  
Fluid  
 **DIESEL ENGINE OIL SAE 5W30 (--- GAL)**

**DIAGNOSIS**

**Recommendation**  
Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

**Wear**  
All component wear rates are normal.

**Contamination**  
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. No other contaminants were detected in the oil.

**Fluid Condition**  
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

**SAMPLE INFORMATION**    method    limit/base    current    history1    history2

Sample Number	Client Info		<b>HRE0000218</b>	---	---
Sample Date	Client Info		<b>09 Jun 2024</b>	---	---
Machine Age	mls	Client Info	<b>108662</b>	---	---
Oil Age	mls	Client Info	<b>50000</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>NORMAL</b>	---	---

**CONTAMINATION**    method    limit/base    current    history1    history2

Fuel	WC Method	>5	<b>&lt;1.0</b>	---	---
Water	WC Method	>0.2	<b>NEG</b>	---	---
Glycol	WC Method		<b>NEG</b>	---	---

**WEAR METALS**    method    limit/base    current    history1    history2

Iron	ppm	ASTM D5185m	>100	<b>80</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>31</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>13</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>2</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	---	---

**ADDITIVES**    method    limit/base    current    history1    history2

Boron	ppm	ASTM D5185m	250	<b>23</b>	---	---
Barium	ppm	ASTM D5185m	10	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	100	<b>33</b>	---	---
Manganese	ppm	ASTM D5185m		<b>3</b>	---	---
Magnesium	ppm	ASTM D5185m	450	<b>1029</b>	---	---
Calcium	ppm	ASTM D5185m	3000	<b>1278</b>	---	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1015</b>	---	---
Zinc	ppm	ASTM D5185m	1350	<b>1225</b>	---	---
Sulfur	ppm	ASTM D5185m	4250	<b>3867</b>	---	---

**CONTAMINANTS**    method    limit/base    current    history1    history2

Silicon	ppm	ASTM D5185m	>25	<b>15</b>	---	---
Sodium	ppm	ASTM D5185m		<b>7</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>95</b>	---	---

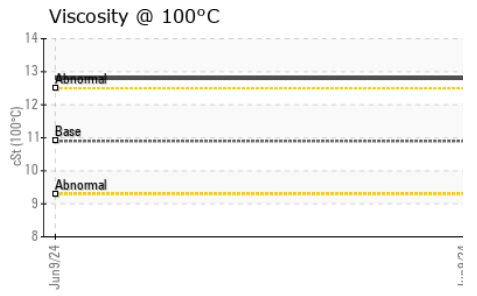
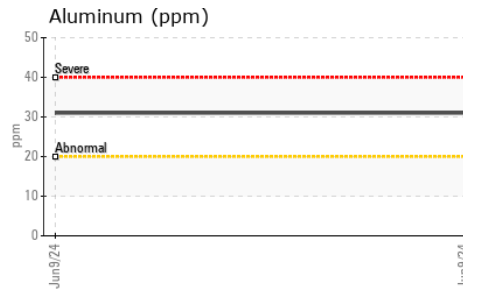
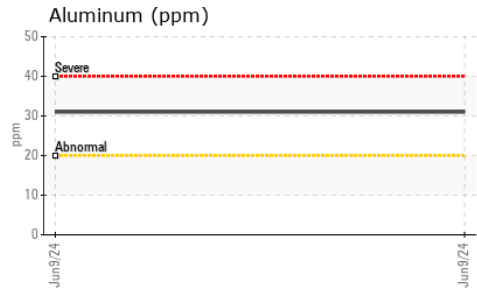
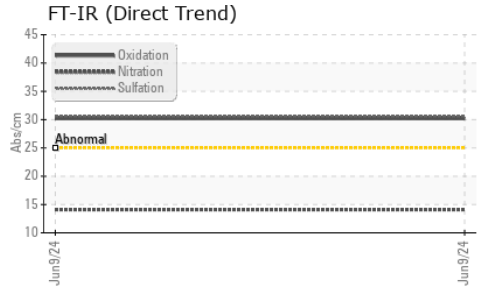
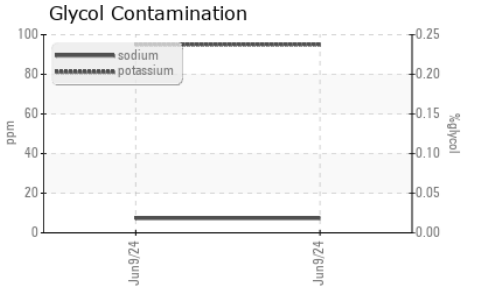
**INFRA-RED**    method    limit/base    current    history1    history2

Soot %	%	*ASTM D7844	>3	<b>0.6</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>14.1</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>30.6</b>	---	---

**FLUID DEGRADATION**    method    limit/base    current    history1    history2

Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>30.2</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>4.6</b>	---	---

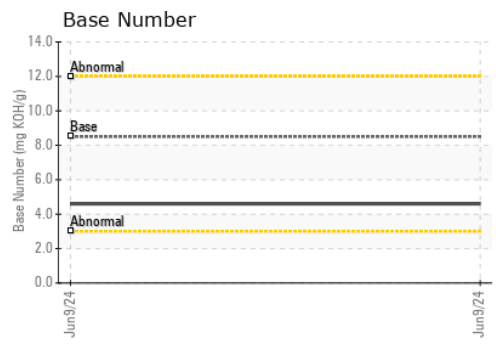
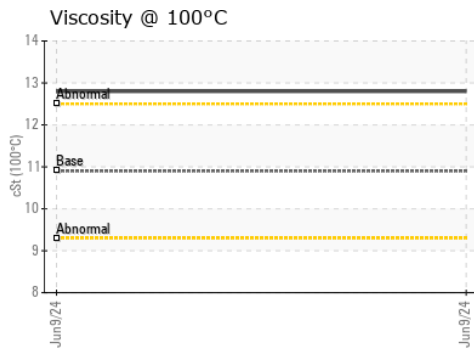
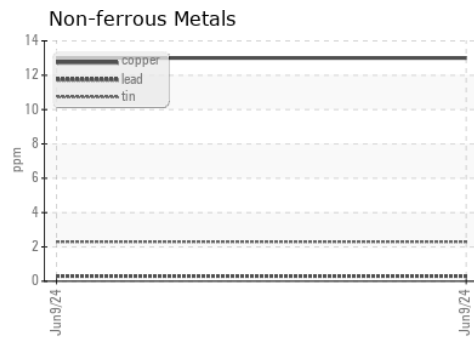
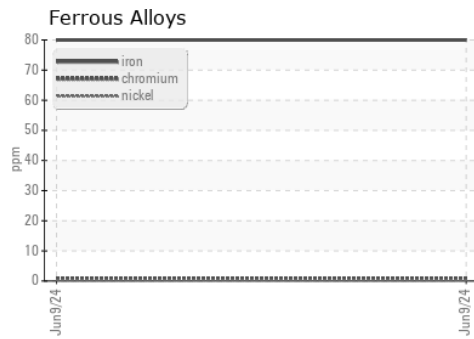
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	10.9	12.8	---	---

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : HRE0000218      **Received** : 21 Jun 2024  
**Lab Number** : **06217557**      **Tested** : 25 Jun 2024  
**Unique Number** : 11090421      **Diagnosed** : 25 Jun 2024 - Don Baldrige  
**Test Package** : FLEET

**MABE TRUCKING**  
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 EDEN, NC  
 US 27289  
 Contact: MAINTENANCE  
 maintenancemanager@mabetrucking.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)      F: (336)635-1791